

1977
CENSUS OF
CONSTRUCTION
INDUSTRIESCC77-1-4(P)
Issued April 1979

Industry Series

Preliminary Report

General Contractors—Industrial Buildings and Warehouses

SIC 1541

During 1977, the establishments with payroll in this industry had business receipts of \$13.0 billion. Of this amount, \$12.8 billion were receipts for construction work, an increase of 51 percent compared with 1972. Their payments for construction work subcontracted to others amounted to \$5.3 billion leaving net construction receipts of about \$7.5 billion. Total average employment in the industry showed an increase of 16 percent from 1972 to 201.4 thousand employees. Payroll for 1977 amounted to \$2.8 billion. Value added at \$4.3 billion in 1977 was 54 percent more than in 1972.

The General Contractors—Industrial Buildings and Warehouses industry includes general contractor establishments primarily engaged in construction of industrial buildings and warehouses such as aluminum plants, automobile assembly plants, pharmaceutical manufacturing plants, and commercial warehouses (including new work, additions, alterations, remodeling, and repair). It includes construction of factory buildings, cold storage plants, grain elevators, and industrial plants. General contractors of nonresidential buildings other than industrial buildings and warehouses are classified in industry 1542. For a more detailed description, see the 1972 SIC Manual.¹

For this census, a "construction establishment" was defined as a relatively permanent office or other place of business at which or from which the usual business activities related to construction were conducted. A separate census report was required from each establishment but not from each construction site. Instead, the data for work at each site were included in the report from the appropriate office or branch office. Foreign construction activities were not included in this census.

The 1977 Census of Construction Industries is the sixth census of construction establishments in the United States. As in previous years, it was conducted jointly with the censuses of mineral industries, manufactures, retail trade, wholesale trade, and service industries under authority of title 13 of the United States Code. Although the first construction census was

conducted covering 1929, only the data from the censuses of 1967 and 1972 are comparable with the 1977 data.

The 1977 estimates for establishments with payroll in all of the construction industries are based on reports from a probability sample of approximately 181,000 establishments selected from about 536,000 construction establishments with payroll. The sample included all construction establishments with a payroll equivalent of 15 or more full-time employees and a sample of those with fewer employees. There were two exceptions: In SIC 1521, sampling was employed in establishments with less than 20 employees because of the large number of establishments in that industry; in SIC 1795, all known establishments were included because of the very small number of establishments in that industry. The data obtained from the sample were inflated to represent all construction establishments with payroll. Complete descriptions of the sampling and estimating procedures will be included in the final reports.

Since the data in this report are based on a sample, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same schedules and procedures. The standard error shown in the tables is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population was surveyed. As calculated for this report, the standard error partially incorporates the effect of random errors of response, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error.

¹ Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 4101-0066. Price \$6.75. 1977 Supplement. Stock No. 003-005-00176-0. Price 90 cents.

U.S. Department
of Commerce
BUREAU OF
THE CENSUS

For sale by Subscriber Services (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by draft on a U.S. bank. 35 cents per copy.

Table 1. Detailed Statistics for Establishments With Payroll: 1977, 1972, and 1967

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	General contractors--industrial buildings and warehouses (1541)			Standard error of estimate (percent)		
	1977	1972	1967	1977	1972	1967
Number of establishments.....	8,214	9,538	8,295	2	2	3
Proprietors and working partners.....	2,857	3,976	4,600	5	5	5
All employees:						
March.....	181,224	157,540	166,590	1	1	1
May.....	200,062	167,497	178,290	1	1	1
August.....	215,292	185,290	206,008	1	1	1
November.....	208,761	177,935	183,827	1	1	1
Average.....	201,444	173,094	184,960	1	1	1
Construction workers:						
March.....	150,991	129,778	142,493	1	1	1
May.....	168,823	139,413	153,966	1	1	1
August.....	183,734	156,317	181,383	1	1	1
November.....	177,277	148,975	159,338	1	1	1
Average.....	170,300	144,625	159,878	1	1	1
Other employees:						
March.....	30,233	27,762	24,150	1	1	1
May.....	31,240	28,084	24,393	1	1	1
August.....	31,558	28,973	24,646	1	1	1
November.....	31,484	28,960	24,538	1	1	1
Average.....	31,183	28,475	24,762	1	1	1
Payroll, all employees.....	2,848,202	1,729,634	1,327,593	1	1	1
Payroll, construction workers.....	2,243,507	1,356,140	1,067,884	1	1	1
Payroll, other employees.....	604,695	373,494	259,215	1	1	1
First quarter payroll, all employees.....	593,607	(NA)	(NA)	1	(NA)	(NA)
Employer costs for fringe benefits.....	538,790	(NA)	(NA)	1	(NA)	(NA)
Legally required expenditures.....	314,954	(NA)	(NA)	1	(NA)	(NA)
Voluntary expenditures.....	223,836	(NA)	(NA)	1	(NA)	(NA)
All business receipts.....	13,008,384	8,666,746	6,784,843	1	1	1
Total construction receipts.....	12,803,812	8,507,370	6,700,474	1	1	1
Receipts for work subcontracted in from others.....	346,542	236,831	149,341	2	3	2
Other business and land receipts.....	204,572	159,376	84,294	1	2	2
Net construction receipts.....	7,533,647	4,805,838	3,648,122	1	1	1
Value added.....	4,250,137	2,751,905	2,120,302	1	1	1
Selected payments.....	8,758,247	5,914,841	4,653,750	1	1	1
Materials, components, and supplies.....	3,369,648	¹ 2,213,309	¹ 1,603,292	1	1	1
Construction work subcontracted to others.....	5,270,165	3,701,532	3,057,504	1	1	1
Selected power, fuels, and lubricants.....	118,434	(NA)	(NA)	1	(NA)	(NA)
Electricity.....	22,739	(NA)	(NA)	1	(NA)	(NA)
Natural gas.....	10,200	(NA)	(NA)	1	(NA)	(NA)
Gasoline and diesel fuel.....	65,222	(NA)	(NA)	1	(NA)	(NA)
Lubricating oils and greases.....	16,686	(NA)	(NA)	1	(NA)	(NA)
Other.....	3,587	(NA)	(NA)	2	(NA)	(NA)
Rental payments for machinery, equipment, and structures.....	134,693	(NA)	(NA)	1	(NA)	(NA)
For machinery and equipment.....	113,017	72,513	57,123	1	2	1
For structures.....	21,676	(NA)	(NA)	1	(NA)	(NA)
Selected purchased services.....	109,643	(NA)	(NA)	2	(NA)	(NA)
Communication.....	40,650	(NA)	(NA)	5	(NA)	(NA)
Repairs to structures and related facilities.....	8,312	(NA)	(NA)	2	(NA)	(NA)
Repairs to machinery and equipment.....	60,683	(NA)	(NA)	1	(NA)	(NA)
Capital expenditures.....	189,695	97,248	64,696	2	2	2
New.....	160,329	79,447	54,361	2	2	2
Structures and related facilities.....	47,098	24,293	15,706	5	4	3
Machinery and equipment, including automobiles and trucks.....	113,231	55,154	38,655	1	2	2
Automobiles and trucks intended primarily for highway use.....	50,324	(NA)	(NA)	2	(NA)	(NA)
Used.....	29,367	17,801	10,335	4	4	8
Structures and related facilities.....	6,705	3,154	3,817	7	8	19
Machinery and equipment, including automobiles and trucks.....	22,662	14,647	6,518	4	4	4
Fixed assets and depreciation:						
Gross book value of depreciable assets at end of year.....	1,121,304	699,057	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	546,056	312,384	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	575,248	386,673	(NA)	1	3	(NA)
Depreciation charges during year.....	102,309	73,741	(NA)	1	6	(NA)
Structures, additions, and related facilities:						
Gross book value of depreciable assets at end of year.....	342,622	258,470	(NA)	2	4	(NA)
Accumulated depreciation at end of year.....	103,806	66,176	(NA)	2	4	(NA)
Net value of depreciable assets at end of year.....	238,816	192,294	(NA)	2	4	(NA)
Depreciation charges during year.....	16,300	12,620	(NA)	2	3	(NA)
Machinery and equipment:						
Gross book value of depreciable assets at end of year.....	778,682	440,587	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	442,250	246,208	(NA)	1	1	(NA)
Net value of depreciable assets at end of year.....	336,432	194,379	(NA)	1	2	(NA)
Depreciation charges during year.....	86,009	61,121	(NA)	1	7	(NA)

¹Includes data for power, fuels, and lubricants, now shown separately.

Table 2. **Construction Receipts for Establishments With Payroll by Type of Construction: 1977 and 1972**

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	General contractors--industrial buildings and warehouses (1541)		Standard error of estimate (percent)	
	1977	1972	1977	1972
Construction receipts.....	12,803,812	8,507,370	1	1
Building construction.....	11,928,355	8,174,202	1	1
Single-family houses.....	151,026	135,712	3	4
Apartment buildings.....	115,355	181,306	2	1
Other residential buildings.....	65,173	93,361	2	2
Industrial buildings and warehouses.....	9,677,528	6,400,405	1	1
Office and bank buildings.....	644,947	485,315	1	1
Stores, restaurants, public garages, and automobile service stations....	371,057	262,196	2	2
Religious buildings.....	95,382	78,527	2	4
Educational buildings.....	275,289	239,885	1	1
Hospitals and institutional buildings.....	364,469	178,652	1	1
Amusement, social, and recreational buildings.....	84,059	82,866	2	2
Other nonresidential buildings.....	84,069	35,977	5	7
Nonbuilding construction.....	860,255	324,871	1	1
Power plants.....	464,404	99,605	1	1
Sewage treatment and water treatment plants.....	154,612	81,715	1	1
Other nonbuilding construction.....	241,239	143,551	1	1
Construction work not specified by kind.....	15,261	8,297	2	28

Note: See text for explanation of duplication.

This report does not include figures for separate administrative offices, warehouses, garages, or other auxiliary units which service construction establishments of the same company. Data for separate central administrative offices and auxiliaries are collected in the enterprise statistics survey, a part of the economic censuses.

This report is one in a series presenting preliminary data collected in the 1977 Census of Construction Industries. The universe for this census included all establishments classified in the construction industries (SIC's 15, 16, 17, and 6552). This report will be superseded by a more detailed final report. In addition to data for establishments with payroll presented here, the final Industry Summary report and the reports in the Geographic Area Series will present limited data for construction establishments with no payroll during 1977.

The totals of construction receipts reported by all construction establishments in each of the several industry, State, or other groupings in this census contain varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted out to other construction firms and, therefore, will be included in the subcontractor's receipts. To avoid this duplication, a "net construction receipts" figure has been derived by subtracting the payments made for construction work subcontracted to others from the construction receipts.

Usually, "value added" is the best measure for comparing the relative economic importance of industries or areas. It eliminates the duplication in receipts because of subcontracting. It also eliminates from the output measure the cost of materials, which differs in relative importance among areas and industries. For this census, "value added" is equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for industries for which land receipts are significant, "value added" is equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

The symbols in the tables mean:

- Represents zero.
- D Withheld to avoid disclosing figures for individual companies; figures are included in higher level totals.
- S Withheld because estimates did not meet publication standards on the basis of either the associated standard error or a consistency review.
- Z Standard error of estimate is greater than zero but less than 1 percent.
- a Sampling error is greater than 40 percent.
- NA Not available; data were not collected.

U.S. Department
of Commerce
BUREAU OF THE CENSUS
Washington, D.C. 20233
Official Business

Postage

5 0673 01039486 7

U.S. Department
of Commerce

COM-202

